A

Applied Global Money Management

ABSTRACT

This article focuses on various global money management systems and practices. Three of the featured topics include the international monetary system, the international financial system, and the international capital budgeting process. There is an explanation as to why the international monetary system is necessary as well as some of the problems that are encountered in the international capital budgeting process. Finally, there is a discussion about the international financial system, especially the new international financial architecture (NIFA).

OVERVIEW

What is money management? Money management is the method of controlling and governing money, which can involve investing, budgeting, banking, and the implementation of taxes. This article provides a preview of how it is applied in a global economy. Some of the highlighted areas include the international monetary system, the international financial system, and international capital budgeting.

INTERNATIONAL MONETARY SYSTEM

The Gold Standard

The international monetary system is needed in order to better describe an ordinary form of value for the world to use as its currency. During the late nineteenth and early twentieth centuries, the gold standard became the first international monetary system. "It has often been assumed in the international political economy literature that the classical gold standard of the late nineteenth century represented a turning point in monetary history because it marked the end wherein states manipulated their currency to increase their revenues" (Knafo, 2006, p. 78). One advantage of this type of system is that gold has a stabilizing influence. However, a disadvantage of the system is that it lacks liquidity. In addition, if there was an unexplainable increase in the supply of gold, prices could rise abruptly. Given the number of disadvantages, the international gold standard failed in 1914 and was replaced by the gold bullion standard during the 1920s. However, the gold bullion standard ceased to be used in the 1930s.

The Gold Exchange Standard

The gold exchange standard was used to conduct international trade during the period after World War II. This system encouraged countries to set the value of their currency to some foreign currency, which was set and redeemed in gold. Many countries set their currency to the dollar and maintained dollar reserves in America. The United States was seen as the leading country for currency. It was during the 1944 Bretton Woods International conference that a method of fixed exchange rates was conceived and implemented. In addition, the International Monetary Fund was established and charged with conserving stable exchange rates globally.

The Bretton Woods System

The Bretton Woods system was charged with developing and implementing the rules and regulations for global commercial and financial transactions. The International Bank for Reconstruction and Development was established as a result of this endeavor. It was the first effort at creating a system that would control monetary relationships between autonomous nation-states. The greatest accomplishments of the Bretton Woods system occurred when: Each country agreed to implement a monetary policy that would maintain the exchange rate of its currency in a fixed amount through the value of gold. They also agreed that the International Monetary Fund had the right to connect fleeting inequalities of payments. Unfortunately, the method broke down in 1971 because of Americas' suspending of conversion from dollars to gold.

The Growth of the Global Economy

According to a new report conducted by Oliver, Wyman & Company for Strategic Finance, global net revenue from money management is expected to triple to $900 billion by 2010, which is up from $277 billion in 1996 (Chernoff, 1998). The report predicts that revenue will grow at a 9 percent annual clip. As a result, money management was forecasted to become one of the quickest spreading sectors in the global financial industry. In 2017, the money management business generated approximately US$250 billion in global revenue for large banks, such as Citigroup, JP Morgan Chase, Bank of New York Mellon Corporation, HSBC Holdings, Deutsche Bank, and others (Dilts & Chaterjee, 2019). This reflects the upward market movement, in which global personal financial wealth grew by 12 percent in 2017 to US$202 trillion, over twice as large as the world's gross domestic product (GDP) for that same year, with North America remaining the richest global region and the largest market (The Boston Consulting Group, 2018).

Chernoff (1998) alleges that growth is driven by a variety of factors such as "modest economic growth; faster wealth buildup among the affluent; continued growth in investments as a share of total financial assets: aging populations in Western countries; and an emerging middle class in developing companies" (p. 8).

APPLICATION

International Capital Budgeting

When the financial management team determines whether or not to invest in specific capital projects, the process is called capital budgeting. An organization usually has to deal with capital budgeting issues when it plans to acquire new assets or replace existing obsolete assets in order to maintain efficiency. The financial management team must determine which projects are good investment opportunities, which projects are the most desirable to acquire, and how much the organization should invest in each asset.

International capital budgeting refers to when projects are located in host countries other than the home country of the multinational corporation. Some of the techniques (i.e., calculation of net present value) are the same as traditional finance. However, "capital budgeting for a multinational is complicated because of the complexity of cash flows and financing options available to the multinational corporation" (Booth, 1982, p. 113).

Challenges Unique to Capital Budgeting for the Multinational Corporation

Capital budgeting for the multinational corporation presents many problems that are rarely found in domestic capital budgeting (Shapiro, 1978; Ang & Lai, 1989). Financial analysts may find that foreign projects are more complex to analyze than domestic projects due to the need to:

> **Distinguish between parent cash flow and projects cash flow.** Multinationals will have the opportunity to evaluate the cash flow associated with projects from two approaches. They may look at the net impact of the project on their consolidated cash flow or they may treat the cash flow on a standalone or unconsolidated basis. The theoretical perspective asserts that the project should be evaluated from the parent company's viewpoint since dividends and repayment of debt is handled by the parent company. This action supports the notion that the evaluation is actually on the contributions that the project can make to the multinational's bottom line.

Some organizations may want to evaluate the project from the subsidiary's (local) point of view. However, the parent company's viewpoint should supersede the subsidiary's point of view. Multinational corporations tend to compare their projects with the subsidiary's projects in order to determine where their investments should go. The rule of thumb is to only invest in those projects that can earn a risk-adjusted return greater than the local competitors performing the same type of project. If the earnings are not greater than the local competitors, the multinational corporation can invest in the host country's bonds since they will pay the risk-free rate adjusted for inflation.

Although the theoretical approach is a sound process, many multinationals tend to evaluate their projects from both the parent and project point of view because of the combined advantages. When looking from the parent company's viewpoint, one could obtain results that are closer to the traditional net present value technique. However, the project's point of view allows one to obtain a closer approximation of the effect on consolidated earnings per share. The way the project is analyzed is dependent on the type of technique utilized to report the consolidated net earnings per share.

Recognize money reimbursed to parent company when there are differences in the tax system. The way in which the cash flows are returned to the parent company has an effect on the project. Cash flow can be returned in the following ways:

Dividends—It can only be returned in this form if the project has a positive income. Some countries may impose limits on the amounts of funds that subsidiaries can pay to their foreign parent company in this form.

Intrafirm debt—Interest on debt is tax deductible and it helps to reduce foreign tax liability.

Intrafirm sales—This form is the operating cost of the project and it helps lower the foreign tax liability.

Royalties and license fees—This form covers the expenses of the project and lowers the tax liability.

Transfer pricing—This form refers to the internally established prices where different units of a single enterprise buy goods and services from each other.

Anticipate the differences in the inflation rate between countries given that it will affect the cash flow over time.

Analyze the use of subsidized loans from the host country since the practice may complicate the capital structure and discounted rate. The host country may target specific subsidiaries in order to attract specific types of investment (i.e., technology). Subsidized loans can be given in the form of tax relief and preferential financing, and the practice will increase the net present value of the project. Some of the advantages of this practice include: Adding the subsidiary to project cash inflows and discount; discounting the subsidiary at some other rate, risk free, and; lowering the risk adjusted discount rate for the project in order to show the lower cost of debt.

Determine if the political risk will reduce the value of the investment. Expropriation is the ultimate level of political risk, and the effects of it depends on when the expropriation takes place, the amount of money the host government will pay for the expropriation, how much debt is still outstanding, and the tax consequences of expropriation and the future cash flow.

Assess the different perspectives when assessing the terminal value of the project. Estimating the salvage value or terminal value depends on the value of the project if retained, the value of the project if purchased by outside investors and the value of the project if it were liquidated. The corporation would use the assessment that yields the highest value.

Review whether or not the parent company had problems transferring cash flows due to the funds being blocked. An example would be when a host country limits the amounts of dividends that can be paid. If this were to occur, the multinational corporation would have to reexamine its reinvestment return and other methods in which the funds could be transferred out of the country. The blocked funds can be used to repay bank debt in the host country and allow the organization to have open lines of credit to other countries.

Make sure that there is no confusion as to how the discount rate is going to be applied to the project.

Adjust the project cash flow to account for potential risks. One must assume that every project has some level of risk. The risk is usually seen as part of the cost of capital. International projects tend to have more risk than domestic projects. Therefore, it is advantageous to review the risk based on the parent's and project's perspective. Each perspective has a different way of adjusting risk. For example, the parent company may propose to treat all foreign risk as a single problem by increasing the discount rate applicable to the foreign projects or incorporate all foreign risk in adjustments to forecasted cash flows of the project. The first option is usually not recommended because it may penalize the cash flows that are not really affected by any sort of risk and it may ignore events that are favorable to the organization. The four components are initial investment outlay, net cash benefits (or savings) from the operations, terminal cash flow, and net present value (NPV) technique.

VIEWPOINT

International Financial Systems

There was much growth and change in national and international financial systems in the twentieth century. During the postwar period, many countries had the opportunity to experience economic increases, steady low unemployment and continuous deregulation in their respective economic markets. Positive steps have been taken to change the way business was done through acts such as the implementation of the European Union, the North America Free Trade Agreement and the Asia Pacific Economic Cooperation. In addition, international institutions like the World Bank, the International Monetary Fund (IMF) and the Bank for International Settlements have assisted in the management of the changes that have occurred in the international financial arena. All of the efforts mentioned above have been an attempt to produce a sound international financial system that will be able to sustain over the years.

Importance of International Cooperation

There are some key issues that may have an effect on the international financial system. Therefore, it is imperative that all of the organizations and initiatives listed above come together in order to create an international financial architecture versus working in isolation. "Globalization and increasing interdependence amongst all the nations of the world have allowed people to have a better understanding of key factors which affect the welfare and interest of all people and nations and their absence could harm both developed and developing countries. Some of these issues are sustainable development, world peace and security, sound global environmental policies, international trade, stable monetary systems, sound financial institutions, universal education and health, sound and all embracing technological changes and effective and universally accessible telecommunication" (Moshirian, 2002, p. 276).

The establishment of the IMF and the World Bank is probably one of the most important success stories for international economic cooperation. Since the mid-twentieth century, there have been many changes in terms of the political and economic climate on a global level, which has caused the world's top international financial institutions to shift in terms of how they operate their businesses. Given the number of financial crises that have surfaced during in the twenty-first century, many scholars and practitioners in the field have called for a reform in how the international financial system is structured. These crises have exposed the weaknesses that are in the international financial system as well as highlight the fact that globalization has pros (benefits) and cons (risks).

The New International Financial Architecture

"The new international financial architecture (NIFA) was created by the G-7 countries due to the growing volatility in developing countries. Some key components of the NIFA include: The G-20, the Financial Stability Forum and the Reports on Observance of Standards and Codes, the latter involving areas such as corporate governance" (Soederberg, 2002, p. 612). The purpose of the architecture is to offer governments, businesses and individuals a mechanism (i.e., institutions, markets) to conduct economic and financial activities. The goal is to create an environment that strengthens and stabilizes the international financial system and minimizes the global exposure to financial dilemmas. Some advances have been made in order to reach these goals. The IMF has been instrumental in making some of these goals a reality. According to the IMF's fact sheet (2000), some of the major accomplishments include:

Increased availability of information from governments and other institutions to the general public

Increased usage of codes of healthy practices that are needed for an economy to function successfully

The creation of the Contingent Credit Lines.

International Monetary Fund Improvements

The IMF is working diligently to provide continuous improvements to practices that affect many sectors. For example, this body continues to:

- Stimulate the release of public information reports that detail the IMF Executive Board's evaluation of a nation's financial state and economic policies.
- Encourage members to reveal the description of policies that the members might adhere to in order to maintain financial stability through the IMF-supported program.
- Help countries implement guidelines, such as the Reports on the Observance of Standards and Codes, which will evaluate a nation's development in practicing globally accepted standards and codes.
- Address gaps in regulatory standards through the Basel Committee on Banking Supervision.
- Encourage members to put procedures in place when they are not experiencing any problems so that they are not responding to a crisis. It's an opportunity to be proactive versus reactive.
- Aid countries in assessing their extrinsic liabilities and choosing the proper exchange rate programs.

CONCLUSION

The international monetary system is needed in order to better describe the shared standards of value for global currencies. During the late nineteenth and early twentieth centuries, the gold standard became the first international monetary system. One of the advantages of this type of system is that gold has a stabilizing influence. However, a disadvantage of the system is that it lacks liquidity. In addition, if there was unexplainable increase in the supply of gold, prices could rise abruptly. Given the number of disadvantages, the international gold standard failed in 1914 and was replaced by the gold bullion standard during the 1920s. However, the gold bullion standard ceased to be used in the 1930s.

The Bretton Woods system was charged with developing and implementing the rules and regulations for global commercial and financial transactions. The International Bank for Reconstruction and Development was established as a result. It was the first effort at creating a system that would govern monetary relations among independent nation-states. The greatest accomplishments of the Bretton Woods system occurred when each country agreed to implement a monetary policy that would maintain the exchange rate of its currency in a fixed amount through the value of gold. They also agreed that the IMF had the right to connect fleeting inequalities of payments. Unfortunately, the method broke down in 1971 when the United States suspended conversion from dollars to gold.

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There was much growth and change in national and international financial systems in the 20th century. During the postwar period, many countries had the opportunity to experience economic growth, low unemployment and gradual deregulation in their respective financial markets. Positive steps have been taken to change the way business was done through acts such as the emergence of the European Union, the North America Free Trade Agreement and the Asia Pacific Economic Cooperation. In addition, international institutions such as the World Bank, the IMF and the Bank for International Settlements have assisted in the management of the changes that have occurred in the international financial arena. All of the efforts mentioned above have been an attempt to produce a sound international financial system that will be able to sustain over the years. "The financial system in the 21st century should provide a financial environment that is conducive to contributing to further global financial integration as well as better macroeconomic coordination" (Moshirian, 2002, p. 274).

According to a report conducted by Oliver, Wyman & Company for Strategic Finance in the 1990s, global net revenue from money management was expected to triple to $900 billion by 2010, up from $277 billion in 1996 (Chernoff, 1998). In fact, by 2013, money management was a $53 trillion dollar industry (Bradford, 2013) and in 2017, it generated about US$250 billion in global revenue.

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Applied Macroeconomics

ABSTRACT

Macroeconomics is a branch of economics created by John Maynard Keynes, a British economist. Macroeconomics looks at the economy on a large scale either nationally, regionally, or between countries. Keynes's view differed from the classical approach to macroeconomics. The classical view held that there should be no government interference in the economy because it is always in equilibrium or adjusts to put itself in equilibrium. Keynes's view was that certain circumstances, such as a depression, would not improve through self-regulation of the economy and required government intervention. For example, during a depression, unemployment may not automatically improve and often requires government intervention to create jobs. Large-scale macroeconomic indicators can measure the health of the economy and compare the current state of the economy to other periods in time. These measures can also predict what policies and actions will benefit the economy. Applied macroeconomics is

applying assumptions about large-scale economic measures to real-world economic problems. Macroeconomic indicators include the unemployment rate, gross domestic product, interest rates, money collected in taxes compared to spending, and the inflation rate.

OVERVIEW

Applied macroeconomics is taking aggregate theories and applying them to real-world scenarios. Aggregate theories are assumptions about aggregate (total or sums) measures in the economy. For example, aggregate supply is the sum of goods and services produced in an economy; it also serves as a measure of how strong the economy is. Applied macroeconomics can be used as a tool to create an accurate picture of current economic events and to suggest approaches for improvement or correcting mistakes. Economists, governments, companies, and individuals have an interest in looking at the economy as a whole because all are affected by changes in the economy. Economists may look at a problem in macroeconomics as an opportunity to predict or design a better future economic state or further the development of the field of economics. Governments may look at macroeconomics to define new policies that address economic issues and support the economy. Companies and individuals may be interested because information about the broad tendencies of the economy can guide decision making such as looking for a new job or hiring workers and buying equipment.

Some of the big problems and concerns of macroeconomics are based on indicators of the economy. These can include unemployment, inflation, interest rates, and supply and demand. In the United States and other countries including Japan, the economy is based on the free market or capitalist system where people may engage in the business of producing and selling goods and services competitively. The government influences business activity by controlling monetary policy and possibly with regulations governing certain aspects of business. Countries take different approaches to creating a healthy and growing economy. These approaches can include how productive resources are used by the producers of goods and the level of government involvement to support and encourage growth. If the economy is healthy, there is the potential to improve the standard of living of the people in that country. A decline in business activity can create a recession and negatively impact spending and incomes. In countries like China, the government exerts additional control over businesses by owning the businesses and deciding how they will be run. Also, in countries where governments control business, they also guarantee full employment by employing all who can work.

A History of Macroeconomics. John Maynard Keynes "was a British economist ... who created macroeconomics, the study of economics on a large scale" (Gilman, 2006, p. 41). Macroeconomics asks a number of questions such as:

- What is the unemployment rate? How easy or difficult is it to find work?
- What is the strength of the dollar relative to other forms of currency around the world?
- What is the level of prices? Are they rising, falling, or staying the same? How does this period of pricing compare to prices in another period?
- What revenue is the government collecting in taxes and how does that compare to government spending?
- What is the level of indebtedness to other countries?
- What is the production rate of the country and is the overall income level growing or falling?
- How easy or difficult is it to borrow money based on interest rates?

Schools of Macroeconomic Thought. There are many different versions or flavors of macroeconomics beyond what Keynes studied. Some simply disagree with his views while others build on his ideas. Gottheil (2007, p. 546) lists the following schools of macroeconomic theory and thought:

- Classical
- Keynesian
- Neo-Keynesian
- Rational expectations
- Supply side economics

Gottheil cautions that within each school of thought there can be differences of opinion. Gottheil discusses the schools of thought with respect to unemployment and inflation about which economists desire to uncover the causes and cures. As one example, Gottheil states that classical economists think unemployment is temporary and a condition that will be corrected by the market. Similarly, classical economists believe that prices will eventually move to where they should be. Keynesian economists think that unemployment can go on indefinitely with prices remaining at high levels and that inflation can have many causes. De Rooy (1995, p. 143) describes a phenomenon called demand-pull inflation in which a country's income is growing so fast that it cannot produce goods and services fast enough. The growth comes from an increase in the "supply of money and credit in the economy." Demand-pull inflation can be compared to cost-push inflation, which occurs when there are shortages of certain goods and services. Another scenario is stagflation when prices are high, inflation is high, and the economy gets progressively worse. Stagflation (stagnation and inflation) was termed in the 1970s and 1980s when unemployment and inflation were simultaneously high. At this time, the economy did not react the way Keynesian economists expected and led to a new movement of neo-Keynesians.

Applied macroeconomics seeks to understand or explain fluctuations in the economy and to determine what actions make sense to respond to the fluctuations (Australian Graduate School of Management, 1997).

Economic Indicators. Moffatt (2009) describes an economic indicator as a statistic about the economy. Examples of economic indicators are unemployment levels and the gross domestic product (GDP). Every economic indicator has three characteristics:

- Relationship to the business cycle economy
- Frequency
- Timing

There are three possible relationships to the economy:
- Procyclic
- Countercyclic
- Acyclic

Procyclic indicators move with the economy while countercyclic indicators move against the economy. Acyclic indicators do not have an observable relationship with the movement of the economy.

Frequency. The frequency of an economic indicator refers to how often the indicator is tracked or measured. Some are measured monthly, others quarterly, and still others annually. Economic indicator timing shows the relationship between the appearance of the indicator and the same trend being present in the economy. Economic indicators can be leading, lagging, or coincident. A leading indicator is one that shows up before the economy follows suit. A lagging indicator is "a measurable economic factor that changes after the economy has already begun to follow a particular pattern or trend. Lagging indicators confirm long-term trends, but they do not predict them ("Lagging Indicator," 2009). While leading indicators give an indication of future events, coincident indicators have a direct relationship with the economy and move at the same time as the economy.

Business Cycles. De Rooy discusses business cycles as events that happen in the economy without a single way to measure them all. Indicators could move slowly or quickly in any direction possible. Even in a recession, which is commonly thought of as a downturn, there are parts of the economy that may flourish. People may pay to repair items instead of purchasing new ones. People may take care of some tasks themselves instead of availing themselves of service providers such as beauty or barber professionals. De Rooy (1995, p. 41) lists GDP, business profits, "big-ticket consumer items called durable goods" and short-term interest rates as measures that move with the business cycle. Nondurable goods like food are not as affected by the economy because they are always needed in good times and bad.

The Issues Considered in Macroeconomics. Macroeconomics looks at the economy as a whole instead of individual consumer behavior (microeconomics). Macroeconomics studies the decisions that businesses and households make to lead to specific results such as the unemployment rate or inflation. There are two major problems considered in macroeconomics: long-term growth and economic fluctuations. Macroeconomic analysis looks at aggregates or totals of activity in the economy and uses mathematical models to examine the behavior of aggregate information (Drozd, 2008). Economists, governments, individuals, and businesses are directly and indirectly affected by the economy and changes in it. De Rooy (1995, p. xi) noted the importance of economic literacy by stating that skill is only part of one's success and that "Your success is significantly influenced by the economic environment."

Economic Growth. Economic growth can mean an improved situation for the citizens of a country. Long-term growth can be determined by examining production in an economy. The economy can grow because of improved means of production and population growth. Both can allow work to be done faster and more efficiently and can help countries benefit from innovation and new knowledge (Burda & Wyplosz, 2004). Since growth may not appear consistently, economists attempt to understand fluctuations in the economy, the causes and the remedies. Economic growth might be stagnated in third world countries because of high levels of poverty and a limited tax base. In developed countries, fluctuations may be caused by changes in aggregate supply and demand or unemployment. The unemployment rate is the number of workers who are unemployed when compared to all the eligible, employable people. Unemployment affects the entire economy because workers without incomes change their spending habits out of necessity, which in turn affects businesses that depended on sales from these now unemployed workers. Unemployment can be devastating to the individual but also to entire communities experiencing high levels of unemployment.

Gross Domestic Product. Countries may look at the gross domestic product because it is the output of the economy and a result of the labor and capital put into the overall economic system. Amadeo (2009) noted that the economy is measured by the gross domestic product and described it as "everything produced by all the people and all the companies in the U.S." Drozd (2008, p. 2) notes that macroeconomics can explain why certain economic conditions exist and allows us to answer questions such as:

- What makes a country grow richer or poorer in a given period of time?
- Why do we have recessions?
- Why did prices tend to rise more rapidly in Russia than in Switzerland?
- Why [did the] inflation rate [vary] so much in the United States in the 1970s and 1980s?
- What determines the value of the U.S. dollar?

Gottheil (2007, p. 378) suggests similar questions macroeconomists can answer such as:

- Why are there periods of recession and inflation?
- What causes prosperity?
- What causes economic growth?

Economists can help present approaches that will lead to better economic results using macroeconomics. The goals of macroeconomics are "long-term growth, high employment, price, employment and output stability" (Drozd, 2008, p. 2). Long-term growth has been sustained in developed countries but the population growth in these same countries does not match the population growth in underdeveloped countries. As a result, there have been increases in outsourcing capabilities by which developed countries can benefit from the cheap and easily available labor in other countries. Inflation is "the rate of change of the average level of prices" (Burda & Wyplosz, 2004, p. 7). Massive levels of inflation are called "hyperinflation" when the monthly level of inflation is greater than 50 percent. Intuitively, it is possible to surmise the outcome of incredible increases in the inflation rate. Significant economic instability is likely to result.

Economic Policy. De Rooy (1995, p. 72) defines economic policy as "any government activity designed to improve the condition of the economy." Heijman feels that it is important to understand what the goals of economic policy are in order to easily understand macroeconomics. Heijman (2001, p. 7) lists the commonly agreed-upon goals as:

- An acceptable level of economic growth
- Full and fulfilling employment
- A fair distribution of income
- A stable price level
- A stable exchange rate
- Equilibrium on the balance of payments or equality in imports and exports
- A good environmental quality

All of these goals are necessary to ensure a sound economy and an environment in which people want to stay and work where they feel they can thrive. Heijman acknowledges the difficulty of getting all of these working at the same time and even acknowledges that these factors may compete with each other. Each government has in place monetary policy experts who will observe the outcomes of the economy and suggest governmental policy or intervention to shape the desired economic outcomes. De Rooy (1995, p. 391) agrees stating that "A government, through its central bank, will often influence its money's exchange rate to help it improve exports, attract foreign investment, or to reduce inflation." As an example, government policy intervention in the case of high employment might be to:

- Increase government spending, thus increasing economic activity and hopefully jobs
- Lower wages
- Shorten the workweek
- Put more money into circulation to encourage spending and investment (Heijman, 2001, p. 10)

De Rooy notes that there are times when intervention by the government can result in harm to the economy. Harm to the economy does not just come from making the wrong decision about a variable being acted upon. Harm can also come from not understanding what other variables in the economy will be affected. For example, De Rooy (1995, p. 391) says "When a central bank increases its nation's money supply to devalue it, domestic interest rates are likely to fall." Without considering outcomes from each point of view, a government could increase economic problems instead of improving them.

Supply & Demand Policy. Macroeconomic policy is made up of supply and demand policy. Managing supply and demand can impact the underpinnings of the economy. However, it is often unclear what the long-term benefit of government intervention is. Ulman (2009) notes that the current economic stimulus plan will slow down the increasing unemployment in a particular region but may not have a long-term impact on annual job growth. Demand policy is determining how to bring production to a place where there is full employment and all production capacity is consumed. Demand policy works in the short term and medium long term (Heijman, 2001). Supply policy, which emphasizes production capacity, is concerned with the skill and education of workers and is tied to long-term results. McAfee (2006, p. 14) states "Supply and demand are the most fundamental tools of economic analysis. Most applications of economic reasoning involve supply and demand in one form or another." McAfee (2006, p. 38) also says that supply and demand help economists to better understand trade.

Macroeconomic Policy Tools. Heijman (2001, p. 13) lists the tools of macroeconomic policy as:

- Fiscal policy
- Monetary policy
- Income and price policy
- Other instruments

Heijman notes that it is important to know what tools are available but also to know when to use them. Heijman (p. 13) says fiscal policy relates to government taxes and spending while monetary policy is concerned with money circulating in the economy, interest rates, inflation, deflation, and exchange rates. Income and price policies are important because labor is the highest cost in product production and if the cost is too high productivity suffers. Similarly, a lack of control of prices can create instability in the economy. The government has tools of legislation "to influence the economic process" (Heijman, 2001, p. 13).

Heijman credits Jan Tinbergen, a Dutch economist, with being the first to devise a process for setting economic policy. Tinbergen suggested four steps policymakers should take which Heijman (2001, p. 15) refers to as the "normative theory of economic policy":

1. The policymaker should set specific goals in conjunction with the government's concern for social welfare.
2. Targets within the goals should be set.
3. The policymaker should determine what instruments or tools are available to affect the policy.
4. The policymaker should have an economic model that links the tools to the targets so that the policymaker can play with the variables and maximize the outcomes

A systematic process implies discipline on behalf of the policy makers. However, it is possible that bureaucracy and politics could affect the policymakers' ability to act systematically.

VIEWPOINT

Macroeconomics & Today's Economic Confusion. The global economic crisis of 2007–2009 was frightening *and* fascinating for economists and individuals. Hanke (2009, para. 1) stated that "Shock and confusion describe the state of investors today." Hanke further noted that wealthy people and retirees had lost a large amount of money. "In 2008, the average household net worth dropped by 22.7%" (2009). Hanke felt that the economic experts had led investors astray. "Many investors are walking around like zombies. When they hear economic prognostications, they become even more confused." Shock and confusion meant that the conventional wisdom of what works economically can no longer be taken at face value. As the economy transitioned, it became apparent that what worked before may not work again and that even economic experts were not in full agreement on how to solve tough problems (Hanke, 2009, para. 6). Rosen (2009) quoted Hanke as being partially critical of the economic stimulus efforts by the government. Hanke believed that the United States was in a recession but not a depression. He also believed that the federal stimulus plan would not have an effect on the economic crisis. He was in favor of the "monetary and tax policies" because he felt they stimulated economic recovery more effectively than government spending (Rosen, 2009, para. 4).

Macroeconomics theory was updated in light of the new problems the economic crisis provided. The development of new types of economic problems is not unusual. Drago, Wooden, and Black discuss changing workplace demographics and the need for flexibility in work hours. With the introduction of women into the workforce, the pressure on employers to adapt to the need for flexibility has increased. At different points in everyone's life, the ability to maintain a certain work level changes; not responding to that change affects productivity in the workplace. Given that women are such a large part of the workforce, the effect on the economy could be substantial. There are also men who do not want to be recognized only as "financial" support to their families. Other life-changing events are listed by Drago, Wooden, and Black. Events include marriage, separation, and divorce as well as retirement. The economies of the developed nations will change dramatically as baby boomers begin to age and leave the workforce.

Until the 2007–2009 global financial crisis, U.S. macroeconomics had gradually developed a benign view of economic fluctuations. The crisis evidenced the errors of this approach and that a reconsideration of the global macroeconomics approach and policymaking was necessary. The benign approach reflected internal and external economic factors that had seemed benign for years. For instance, the techniques used in macroeconomics during the decades prior to the crisis were suited to a global view in which economic fluctuations happened regularly but were basically self-correcting. The problem ensued when this belief became pervasive. The idea that economic shocks—even small ones—could have a strong impact or result in long slumps was not seen as a major issue. Experts understood that "dark corners"—instances in which an economy could malfunction severely—existed, but these were believed to be highly unlikely and the possibility was mostly ignored. Financial institutions, regulators, policymakers, and investors, all underestimated the risks; as a result, financial structures were increasingly rendered vulnerable to shocks. In turn, economists, financial institutions and regulators failed to realize that the global economy operated dangerously close to dark corners (Blanchard, 2014).

The 2007–2009 recession was sparked when the U.S. housing boom collapsed, wreaking havoc in the economy and confusion about which institutions and claims were solvent and, worse yet, which institutions truly held the vast array of insolvent claims. In turn, this led to huge liquidity runs from banks, and even more, from many nonbank financial firms, a majority of which had operated for years without the regulations and oversight that banks received. Due to the interconnection of banking and financial institutions worldwide, the crisis soon became global. In the end, the crisis had one clear implication for policymakers and legislators: authorities should make it one of the major objectives of macroeconomic policy, to forestall in all ways possible any further dark corners. It became clear, in time, that if the financial system had been more transparent, and regulators had ensured that capital ratios were higher, there would probably have been a housing bust in the United States, but its impact would have been much smaller, such as a weak recession limited to the United States, rather than the global economic crisis it became (Blanchard, 2014).

The crisis also evidenced the important role of macroeconomic policymaking. For instance, if nominal rates had been higher prior to the crisis, monetary policy would have had a wider space for maneuvering. A decade after the global crisis, the financial arena remains plagued with anxiety about inequality and economic security. The economic crisis following the recession and slow recovery continue to puzzle many experts. Macroeconomists, more specifically, have faced strong criticism for not being able to foresee and prevent the huge scale of the financial crisis. Nevertheless, most experts agree that what went wrong was that the financial sector was not given the oversight it deserved. The operating models preferred at the time by economists, policymakers, and central bankers were not able to prevent the crisis, because they simply could not imagine such a shock occurring in the banking sector. In short, the prevalent models at the time did not consider financial institutions—with their accompanying interests and risks—as unique agents in the global economy. Since the crisis, however, there have been large amounts of research dedicated to better ways of including the financial sector into economic models (Blanchard, 2014; Nelson, 2018).

Most importantly, there may not be agreement among economists before, during, or after an economic period on what happened and what would be the best policy for the economy. While some advocate more government intervention and others less, macroeconomics is filled with economists that spread the ideological spectrum.

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